

Structure Plans

The following tabulation shows the number and type of prints of structure plans that are generally required by various interested parties.

Planning Studies (Reference: Memo to Designers 1-8)

Send the original drawing to the Estimates Section. Include all the data that would be helpful in pricing the work; this material will be returned.

Estimates Section will provide the cost and forward the following prints and estimate to the Design Section for distribution:

- 1 Print for Design Section (with copy of estimate).
- Original and 2 Prints for Planning Coordination Section (with copy of estimate).
- 3 Prints marked "For FHWA" for individual major bridges (Deck area greater than 125,000 sf) on the National Highway System** and unusual bridges on the National Highway System.**
- 1 Print marked "For FHWA" for individual new bridges, bridge replacement, or bridge reconstruction for all bridges on the Interstate Highway System that are estimated to cost more than \$1 million each.
- 3 Prints to Agreements Section for underpasses and overheads (with copy of request memo).

The original drawing and 2 prints (plus FHWA prints) with original request letter and draft of response are routed through the Design Supervisor and then to the Planning Coordination Section.

If appropriate, the Design Section will make additional prints for Bridge Technical Committees or Technical Specialists.

The Estimates Section will distribute the following prints:

- 1 Print to Maintenance (replacements, widenings, and modifications).
- 1 Print retained by Estimates Section.
- 1 Print to Programming and Scheduling (replacements, widenings, and modifications).

** Whether bridge is/is not on the National Highway System will be stated in the request for planning study. If not so stated, contact Structure Liaison Engineer.



General Plan (Reduced prints except as noted)

(For summary of following, see sample Form DS-D-0004 at end of this memo.)

General Plans noted with an asterisk (*) should be sent in a group through the Design Supervisor to the Planning Coordination Section accompanied by the General Plan Estimate and additional specific transmittal information required for each transmittal letter. If the General Plan Estimate varies more than 10% from the last previous estimate, an explanation shall be furnished.

District Office*

- 10 Prints (along with the estimated bridge cost). Include completed Department of Fish and Game Form, when necessary. (See Memo to Designers 1-21.)

For any stream crossing for which the Preliminary Report suggests bank protection, Designer should send along a reminder to the District to furnish details of bank protection when commenting on General Plan.

For steel girder structures, the selected color should be stated in the letter of transmittal with concurrence or comment requested from the District.

For structures near traffic, the letter of transmittal should discuss needed clearances. (See Memo to Designers 21-19 and *Bridge Design Details* 3-13, paragraph H.)

District Traffic (Lighting)*

- 1 Print
- 1 Copy of electronic file (only on request)

General Plan (continued)

Federal Highway Administration*

- 3 Prints of "Major Structures" on the National Highway System** (individual structures with deck area greater than 125,000 sf) and unusual structures on the National Highway System.**
- 1 Print of other structures on *interstate* routes with individual costs greater than \$1 million.
- 1 Print for seismic retrofit on *interstate* routes for major structures with deck area greater than 125,000 sf, or for a single structure for which the cost is estimated to exceed \$5 million.

Railroads*

Overheads

- 4 Prints for Santa Fe.
- 2 Prints for other railroads. (See Memo to Designers 17-125 for other data to be sent along with these prints to SPTCo.)

Underpasses

- 3 Prints for SPTCo.
- 2 Prints for all other railroads.

The Southern Pacific Transportation Company has indicated that upon receipt of General Plans of minor work to existing structures such as protective fencing contracts, they are experiencing difficulty in determining the location of the structure with the information normally shown. Therefore, when forwarding General Plans for transmittal to the railroads include the following supplemental information in the transmittal letter:

- PUC number of existing structure (available from Maintenance books or from the Agreements Section).
- Name of city in which located, if applicable.
- In large cities, names of adjacent surface streets or intersections.

** Whether bridge is/is not on the National Highway System will be stated in the Preliminary Report. If not so stated, contact Structure Liaison Engineer.



General Plan (continued)

Planning Coordination Section*

- 2 Prints

Headquarters Office of Planning and Design

- 1 Print

Headquarters Office of Landscape Architect

- 2 Prints of all sound walls.

Structure Foundation Branch

Northern Jobs

- 3 Prints to Foundation Studies North Supervisor.

Southern Jobs (Districts 7, 8, 9, 11, 12)

- 1 Print to Foundation Studies North Supervisor.
- 2 Prints plus one full-size print to Foundation Studies South Supervisor.

Office of Structure Maintenance and Investigations

- 1 Print of all bridge structures. If GP includes EQ Retrofit that is not obvious, indicate on GP, "EQ Retrofit."

Office of Structure Construction

- 2 Prints

Design Supervisor

- 2 Prints (along with a copy of "Type Selection Memo" and a copy of a location map for the project/bridge).

Preliminary Investigation Section

- 1 Print to P.I. North or P.I. South as appropriate.

General Plan (continued)

Programming and Scheduling Section

- 1 Print

Agreements Section

- 2 Prints for all projects involving railroads or bridges over waterways. The Agreements Section determines if U.S. Coast Guard, Reclamation Board, or U.S. Army Corps of Engineers permits are required.

The Agreements Section will contact the Design Section involved for additional information for structures involving:

- U.S. Coast Guard
- Public Utilities Commission
- Reclamation Board of State of California. (For bridges involving streams in the Sacramento and San Joaquin Watershed, see *Bridge Design Details* 3-40.)
- U.S. Army Corps of Engineers

Note: Agreements Section needs the following times to obtain permits/approvals.

- PUC approval – 9 months minimum
- Railroad approval for overheads – 12 months
- Railroad approval for underpasses – 24 months
- Coast Guard Permits – 12 months minimum
- Army Corps of Engineers permit for individual project – 6 months.
Most projects are covered by Corps of Engineers nationwide permits and do not require submission of a permit application.
- Reclamation Board Permit – 6 months

Mechanical Section

- 1 Print (work involving pumping plants, movable bridges, tunnels, tubes, etc.)

Estimates Section.

- 1 Print. (Submit with one copy of quantities on representation of Form DS-D-0016 or DS-D-0017)



General Plan (continued)

Bridge Technical Committees and Specialists, if involved

- 1 Print to each as applicable. (See Memo to Designers 1-2 for listing.)

Design Section Originating Plan

- Prints as desired.

Unchecked Details

Unchecked Details to destinations noted with an asterisk (*) should be sent in a group to the Planning Coordination Section accompanied by transmittal information.

Unchecked Details should be reduced prints unless designated or requested full size by the unit or agency involved.

District*

- As a minimum one transparency of Foundation Plan to locate high risk utilities. After communicating with the District Project Engineer, one transparency or print of any other sheets that have details in which the District may be interested.

Agreements Section

- 1 Set of prints for structures involving railroads.

Railroad* (Underpasses only)

- 4 Sets of prints for Santa Fe.
- 3 Sets of prints for SPTCo., NWPRR.
- 2 Sets of prints for all other railroads.
- 4 Sets of prints and one set of design calculations for UPRR.

Office of Structure Construction (Route through Design Supervisor)

- 1 Set of prints (stamped "Unchecked Details" and "Return Comments by _____"). Project Engineer to fill in date before routing to Design Supervisor.

Request field verification of site, if desired by Project Engineer.

Structural Steel Committee

- 1 Set of prints for all structural steel bridges and structures with welded steel components.

Unchecked Details (continued)**Electrical Section 2 – Stray Current Technical Specialist**
(Electrical-powered Rail Transit Facilities)

- 1 Set of prints.

Bridge Strengthening Technical Specialist

- 1 Set of prints for bridges being upgraded.

Earth Retaining Systems Technical Specialist

- 1 Print of MSE walls, tieback walls, and soil nail walls.

Earthquake Committee

- 1 Set of prints for bridges that could encounter earthquake problems and all seismic retrofit projects.

Retrofit Technical Specialist

- 1 Set of prints for all bridge seismic retrofit projects.

Railings, Barriers and Sound Wall Technical Specialist

- 1 Print of Sound Wall and Crash Attenuator Details.

Design Section Originating Plans

- Prints as desired.

Checked Details (Signed and stamped by Project Engineer)

Checked Details should be reduced prints unless requested or designated full size by the unit or agency involved.

District (Route through Planning Coordination Section)

- 1 Set of prints. (Depending on the complexity of the project, you may, after communicating with the District Project Engineer, provide transparencies whose general plans state "Not for Contract Purposes.")



Checked Details (continued)

Agreements Section

- 1 Set of prints for structures involving railroads.

Railroads (Route through Planning Coordination Section)

Overheads

- 4 Sets of prints for Santa Fe.
- 2 Sets of prints for all other railroads.

Underpasses

- 4 Sets of prints for Santa Fe, NWPRR, Union Pacific, and SPTCo.
- 2 Sets of prints for all other railroads.

Office of Structure Maintenance and Investigations

- 1 Set of prints. (For Southern Districts, send prints directly to Structure Maintenance office in Los Angeles.)

Structural Materials Branch, Welding Unit

- 2 Sets of prints of structural steel details and layout sheets. (To be used for determining location of laboratory samples and review of welding and fabrication details.)

Earthquake Committee

- 1 Set of prints for seismic retrofit projects or projects with seismic problems.

Estimates Section

- 1 Set of prints. (Submit with quantity calculations and one copy of quantities on representation of Form DS-D-0019, 0019A, 0019B, or 0019 Sup.)

Specifications Section

- 1 Set of prints.

District Office Engineer through the Specifications Engineer (After Specifications and Estimate are complete at PS&E)

- 1 Set of prints.
- 1 Copy of completed "Federal Type Codes List."

Checked Details (continued)**Electrical Section 2 – Stray Current Technical Specialist**
(Electrical-powered Rail Transit Facilities)

- 1 Set of prints.

Transit Technical Specialist

- 1 Set of prints (transit structures and transit-related facilities).

Design Section Originating Plans

- 1 Set of prints for rack.
- 2 Sets of prints for quantity calculations.

Preliminary Investigation Section

- 1 Print of Foundation Plans that have been revised to contain modified site data or revised alignment.

Mechanical and Electrical Plans for Highway Structures

See *Transportation Architecture Manual*, Chapter 6 and Sections 3-1, 4-2, and 7-1 for M&E plans distribution not listed.

The following distribution of pumping plant plans and other highway structure mechanical and electrical plans shall be made by the Mechanical and Electrical Sections.

General Plan (M&E)**Districts (Except District 04)**
(Route through Planning Coordination Section)

- 1 Transparency

General Plan (M&E) (continued)

District 04 (Route through Planning Coordination Section)

- 1 Transparency (District Design Engineer).
- 1 Transparency (District Traffic Engineer with power requirements indicated thereon).

Federal Highway Administration

(Route through Planning Coordination Section)

- 3 Prints for work involving movable bridges, vehicular tunnels, and storm water pumping facilities.

Design Section (M&E)

- Prints as desired

Bridge Design Section Responsible for Project

- 1 Print

Unchecked Details and Checked Details (M&E)

District (Route through Planning Coordination Section)

- 1 Set of transparencies.

Federal Highway Administration

(Route through Planning Coordination Section)

- 1 Set of prints for work involving movable bridges, vehicular tunnels, and storm water pumping facilities.

Office of Structure Construction

- 1 Print

Design Section Originating Plan

- Prints as desired.



Unchecked Details and Checked Details (M&E) (continued)

Estimates Section

- 1 Print. (Submit with one copy of quantities on representation of Form DS-D-0019A or DS-D-0019 Sup.)

Specifications Section

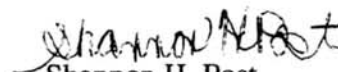
- 1 Set of prints with one electronic copy of Special Provisions.

Disposition of Completed Tracings

All plans sheets shall be signed by the Design Section personnel and stamped by the Project Engineer.

The Design Engineer will then conduct a final review of the plans, sign the General Plans, and transmit the tracings to the Estimates Section for further handling according to Memo to Designers 1-13.


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FLM:jh/rs

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

REQUEST FOR REPRODUCTION

DS-D-0004 (REV 11/94)

[illegible]

* NUMBER AND/OR NEED FOR PRINTS VARIES WITH CONDITION
ORDERING ENGINEER SEE MEMO TO DESIGNERS 1-5